

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-2. (Cancelled)

3. (Currently Amended) ~~Compounds of general formula (I)~~ A compound according to claim 6, 4 in which

A or B in each case independently of one another represent hydrogen, tetrazolyl or the group $-\text{N}(\text{CH}_3)_2$, $-\text{NH}-(\text{CO})\text{-pyrrolidinyl}$, $-\text{NH}-(\text{CO})\text{-pentyl}$, $-\text{NH}-(\text{CO})\text{-hexyl}$, $-\text{NH}-(\text{CO})\text{-hexyl-NH}_2$, $-\text{NH}-(\text{CO})\text{-C}_3\text{H}_7$, $-\text{NH}-(\text{CO})\text{-CH}_2\text{-phenyl}$, $-\text{NH}-(\text{CO})\text{-CH}_2\text{-NH}_2$, $-\text{NH}-(\text{CO})\text{-C}_2\text{H}_4\text{-NH}_2$, $-\text{NH}-(\text{CO})\text{-CH}(\text{NH}_2)\text{-CH}_3$, $-\text{NH}-(\text{CO})\text{-CH}(\text{NH}_2)\text{-hydroxyphenyl}$, $-\text{NH}-(\text{CO})\text{-CH}(\text{NH}_2)\text{-CH}_2\text{-phenyl}$, $-\text{NH}-(\text{CO})\text{-CH}(\text{NH}_2)\text{-CH}_2\text{-hydroxyphenyl}$, $-\text{NH}-(\text{CO})\text{-CH}(\text{NH}-(\text{CO})\text{-CH}_3)\text{-CH}_2\text{-phenyl}$, $-\text{NH}-(\text{CO})\text{-CH}_2\text{-NH}-(\text{CO})\text{-CH}_3$, $-\text{NH}-(\text{CO})\text{-N}(\text{C}_2\text{H}_5)(\text{C}_2\text{H}_4\text{-piperidinyl})$, $-\text{NH}-(\text{CO})\text{-N}(\text{CH}_3)(\text{C}_2\text{H}_4\text{-piperidinyl})$, $-\text{NH}-(\text{CO})\text{-CH}_2\text{-NH}(\text{CH}_3)$, $-\text{CH}_2\text{-N}(\text{CH}_3)_2$, $-\text{NH}-(\text{CO})\text{NH-CH}_2\text{-COOH}$, hydantoinyl, $-\text{CH}_2\text{-COOH}$

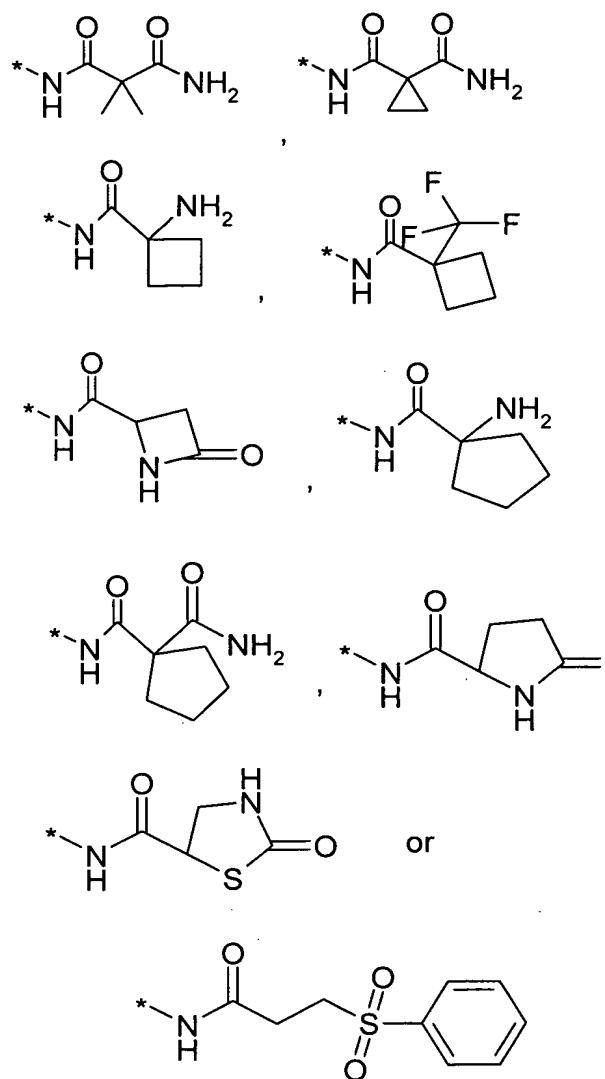
~~whereby the wherein~~ pyrrolidinyl can optionally be substituted with hydroxy or the group $-\text{NH}_2$, $-\text{N}(\text{CH}_3)_2$ or $-\text{NH}-(\text{CO})\text{-CH}_3$, and ~~whereby wherein~~ hydantoinyl can be substituted with $-\text{CH}_3$, $-\text{CH}_2\text{-COOH}$, or $-(\text{CO})\text{-thiazolidinonyl}$,

X represents or the group $-\text{NH}-$,

R¹ represents halogen and

R² represents hydrogen or the group $-\text{NH}-(\text{CO})\text{-phenyl}$ or $-\text{C}_2\text{H}_4\text{-}$, $-\text{C}_3\text{H}_6\text{-}$ both can optionally be substituted in one or more places, the same way or differently, with cyano, hydroxy, phenyl, naphthyl, imidazolyl, thiazolyl, pyridyl, 2-oxazolinyl, piperidinyl, $-\text{NH}_2$, $-\text{NH-CH}_2\text{-thienyl}$, $-\text{NH-}$ pyridinyl-NO₂, $-\text{NH-thiazolyl}$, $-\text{SO}_2\text{-thienyl}$, $-\text{SO}_2\text{-NH}_2$, $-\text{SO}_2\text{-CH}_3$, $-\text{SO}_2\text{-C}_3\text{H}_7$, pyrrolidinonyl substituted with $-\text{COOH}$, $-\text{NH}-(\text{CO})\text{-NH-thienyl}$, $-\text{NH}-(\text{CO})\text{-NH-phenyl}$, $-\text{NH}-(\text{CO})\text{-NH- C}_2\text{H}_5$, $-\text{NH}-(\text{CO})\text{-C}(\text{CH}_3)_3$, $-\text{NH}-(\text{CO})\text{-S-C}_2\text{H}_5$, $-\text{NH}-(\text{CS})$

NH- C₂H₅, -NH-(CO)-C₂H₅, -NH-(CO)-thienyl, -(CO)-NH-NH₂, -(CO)-NH-CH₂-(CO)-NH₂, -(CO)-NH-C₂H₅, -COOH, whereby the wherein phenyl or the imidazolyl, thiazolyl can optionally be substituted in one or more places, the same way or differently, with hydroxy, -CH₃, -NH-(CO)-CH₂-NH₂, -COOC₂H₅, -COOC(CH₃)₃,



or a diastereomer, enantiomer as well as all related isotopes, diastereomers, enantiomers, solvates, polymorphs or pharmaceutically acceptable salts salt thereof.

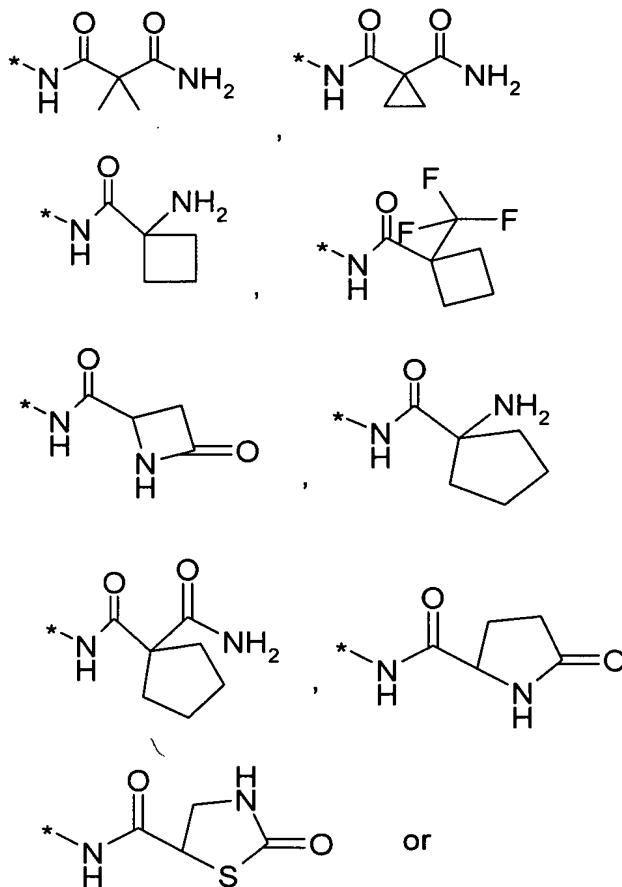
4. (Currently Amended) ~~Compounds of general formula (I)~~ A compound according to claim 6, 4 in which

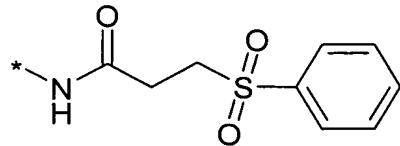
A or B in each case independently of one another represent hydrogen or the group -NH-(CO)-pyrrolidinyl, -NH-(CO)-piperidinyl, -NH-(CO)-morpholinyl, -NH-(CO)-hexyl, -NH₂, -NH-(CO)-CH(NH₂)- hydroxyphenyl, -NH-(CO)-CH(NH₂)-CH₂-hydroxyphenyl, hydantoin optionally substituted with -CH₃,

X represents or the group -NH-,

R¹ represents halogen and

R² represents hydrogen, -C₂H₄-imidazolyl or -C₃H₇ ~~which~~ which can optionally be substituted in one or more places, the same way or differently with the group -NH-CH₂-thienyl, -NH-(CO)-C₂H₅, -NH-(CO)-C(CH₃)₃,





or a diastereomer, enantiomer as well as all related isotopes, diastereomers, enantiomers, solvates, polymorphs or pharmaceutically acceptable salts salt thereof.

5. (Currently Amended) Compounds of general formula (I) A compound according to claim 4, which is

N-[3-[[5-bromo-4-[[3-[[1-(trifluoromethyl)cyclobutyl]carbonyl]amino]propyl]amino]-2-pyrimidinyl]amino]phenyl]-1-pyrrolidinecarboxamide,

N-[3-[[5-bromo-4-[[3-[[1-oxo-3-(phenylsulfonyl)propyl]amino]propyl]amino]-2-pyrimidinyl]amino]phenyl]-1-pyrrolidinecarboxamide,

N-[3-[[5-bromo-2-[[3-[(1-pyrrolidinylcarbonyl)amino]phenyl]amino]-4-pyrimidinyl]amino]propyl]-2,2-dimethyl-propanediamide,

N-[3-[[4-[[3-[(1-aminocyclopentyl)carbonyl]amino]propyl]amino]-5-bromo-2-pyrimidinyl]amino]phenyl]-1-pyrrolidinecarboxamide,

N-[3-[[4-[[3-[(1-aminocyclobutyl)carbonyl]amino]propyl]amino]-5-iodo-2-pyrimidinyl]amino]phenyl]-1-pyrrolidinecarboxamide,

N¹-[3-[[5-bromo-2-[[3-[(1-pyrrolidinylcarbonyl)amino]phenyl]amino]-4-pyrimidinyl]amino]propyl]-1,1-cyclopentanedicarboxamide,

(4R)-N-[3-[[5-bromo-2-[[3-(2,5-dioxo-1-imidazolidinyl)phenyl]amino]-4-pyrimidinyl]amino]propyl]-2-oxo-4-thiazolidinecarboxamide,

(4R)-N-[3-[[5-bromo-2-[[3-(3-methyl-2,5-dioxo-1-imidazolidinyl)phenyl]amino]-4-pyrimidinyl]amino]propyl]-2-oxo-4-thiazolidinecarboxamide,

3-[3-[[5-bromo-4-[[2-(1H-imidazol-4-yl)ethyl]amino]-2-pyrimidinyl]amino]phenyl]-2,4-imidazolidinedione,

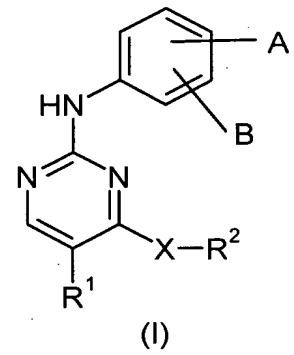
3-[3-[[5-bromo-4-[[2-(1H-imidazol-4-yl)ethyl]amino]-2-pyrimidinyl]amino]phenyl]-1-methyl-2,4-imidazolidinedione,

N'-[3-[[5-bromo-4-[[2-(1H-imidazol-4-yl)ethyl]amino]-2-pyrimidinyl]amino]phenyl]-N-ethyl-N-

[2-(1-piperidinyl)ethyl]-urea,
N-[3-[[5-bromo-4-[[3-[(2,2-dimethyl-1-oxopropyl)amino]propyl]amino]-2-pyrimidinyl]amino]phenyl]-1-pyrrolidinecarboxamide,
N-[3-[[2-[[3-[(2S)-2-amino-3-(4-hydroxyphenyl)-1-oxopropyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-2,2-dimethyl-propanediamide,
N-[3-[[2-[[3-[(1-aminocyclohexyl)carbonyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-2,2-dimethyl-propanediamide,
N-[3-[[2-[[3-[(2S)-2-amino-2-phenylacetyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-2,2-dimethyl-propanediamide,
N-[3-[[2-[[3-[(2R)-2-amino-1-oxo-3-phenylpropyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-5-oxo-2-pyrrolidinecarboxamide,
N-[3-[[2-[[3-[(2R)-2-amino-1-oxo-3-phenylpropyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-2,2-dimethyl-propanediamide,
N¹-[3-[[5-bromo-2-[[3-[(2S)-2-pyrrolidinylcarbonyl]amino]phenyl]amino]-4-pyrimidinyl]amino]propyl]-1,1-cyclopropanedicarboxamide,
N-[3-[[5-bromo-2-[[3-(2,5-dioxo-1-imidazolidinyl)phenyl]amino]-4-pyrimidinyl]amino]propyl]-2,2-dimethyl-propanediamide,
N-(3-((5-bromo-4-((2-(1*H*-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-4-morpholinecarboxamide,
N-(3-((5-bromo-4-((2-(1*H*-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-1-pyrrolidinecarboxamide,
N-(3-((5-bromo-4-((3-((2-thienylcarbonyl)amino)propyl)amino)-2-pyrimidinyl)amino)phenyl)-1-pyrrolidinecarboxamide,
N1-(3-((5-bromo-2-((3-((1-pyrrolidinylcarbonyl)amino)phenyl)amino)-4-pyrimidinyl)-amino)propyl)-1,1-cyclopropanedicarboxamide,
N-(3-((5-bromo-4-((3-((1-oxopropyl)amino)propyl)amino)-2-pyrimidinyl)amino)phenyl)-1-pyrrolidinecarboxamide,
N-(3-((5-iodo-4-((3-((2-thienylcarbonyl)amino)propyl)amino)-2-pyrimidinyl)amino)phenyl)-1-pyrrolidinecarboxamide,
N-[3-[[5-bromo-4-[[3-[[[(2S)-5-oxo-2-pyrrolidinyl]carbonyl]amino]propyl]amino]-2-

pyrimidinyl]amino]phenyl]-1-pyrrolidinecarboxamide,
 N-[3-[[5-bromo-4-[[3-[[[(2S)-4-oxo-2-azetidinyl]carbonyl]amino]propyl]amino]-2-pyrimidinyl]amino]phenyl]-1-pyrrolidinecarboxamide,
 (4R)-N-[3-[[5-bromo-2-[[3-[(1-pyrrolidinyl)carbonyl]amino]phenyl]amino]-4-pyrimidinyl]amino]propyl]-2-oxo-4-thiazolidinecarboxamide or
 N-[3-[[4-[[3-[(1-aminocyclobutyl)carbonyl]amino]propyl]amino]-5-bromo-2-pyrimidinyl]amino]phenyl]-1-pyrrolidinecarboxamide,
or a pharmaceutically acceptable salt thereof.

6. (Currently Amended) Compounds of general formula (I) according to claim 1, A compound of formula (I)

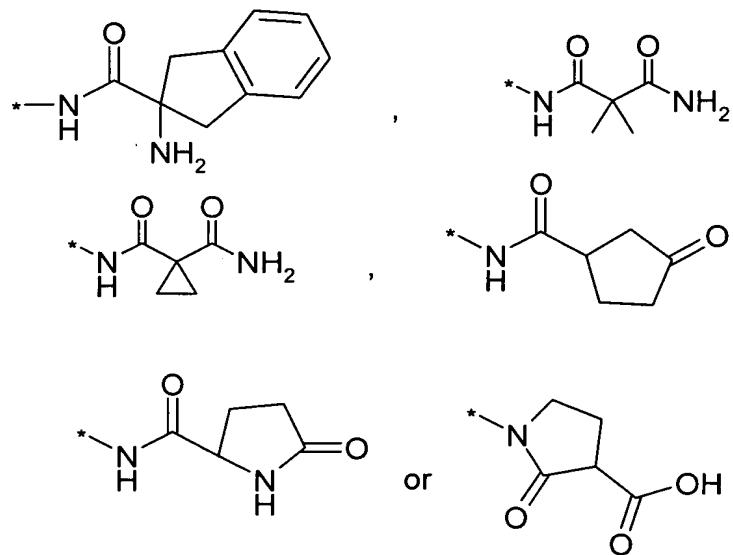


in which

A or B in each case independently of one another represent hydrogen or the group $-\text{NO}_2$, $-\text{NH}_2$, $-\text{NR}^3\text{R}^4$, $-\text{N}(\text{C}_{1-6}\text{-hydroxyalkyl})_2$, $-\text{NH}(\text{CO})\text{R}^5$, $-\text{NHCOOR}^6$, $-\text{NR}^7(\text{CO})\text{R}^8\text{R}^9$, $-\text{NR}^7(\text{CS})\text{NR}^8\text{R}^9$, $-\text{COOR}^5$, $-\text{CO-NR}^8\text{R}^9$, $-\text{SO}_2\text{CH}_3$, 4-bromo-1-methyl-1*H*-pyrazolo-3-yl or $\text{C}_{1-6}\text{-alkyl}$ optionally substituted in one or more places, the same way or differently with cyano, halogen, hydroxy or the group $-\text{NH}_2$, $-\text{NH}(\text{CO})\text{R}^5$, $-\text{SO}_2\text{NHR}^3$, $-\text{COOR}^5$, $-\text{CONR}^8\text{R}^9$, $-\text{O}(\text{CO})\text{R}^5$, $-\text{O}(\text{CO})\text{C}_{1-6}\text{-alkyl-R}^5$,
 X represents an oxygen atom or the group $-\text{NH}-$,
 R¹ represents hydrogen, halogen, hydroxymethyl or the group $-\text{COOH}$, $-\text{COO-iso-propyl}$, $-\text{NO}_2$, $-\text{NH}(\text{CO})-(\text{CH}_2)_2\text{-COOH}$ or $-\text{NH}(\text{CO})-(\text{CH}_2)_2\text{-COO-C}_{1-6}\text{-alkyl}$,

R²

represents C₁₋₆-alkyl optionally substituted in one or more places, the same way or differently, with hydroxy, imidazolyl or the group -NH₂, -NH-(CO)O-CH₂-phenyl, -NH-(CO)H, -NH-(CO)-phenyl, -NH-(CO)-CH₂-O-phenyl, -NH-(CO)-CH₂-phenyl, -NH-(CO)-CH(NH₂)CH₂-phenyl, -NH-(CO)-CH₂-CH(CH₃)-phenyl, -NH-(CO)-CH(NH₂)-(CH₂)₂-COOH,



~~whereby the wherein~~ phenyl can optionally be substituted in one or more places, the same or differently with halogen, C₁₋₆-alkyl or -(CO)-C(CH₂)-C₂H₅, or represents C₃-alkinyl,

R³ or R⁴

in each case independently of one another represent hydrogen or C₁₋₆-alkyl optionally substituted in one or more places, the same way or differently, with hydroxy, phenyl or hydroxyphenyl,

or

R³ and R⁴

together form a C₃₋₆-heterocycloalkylring containing at least one nitrogen atom and optionally can be interrupted by one or more oxygen and/or sulfur atoms and/or can be ~~interrupted~~ interrupted by one or more -(CO)- groups in the ring and/or optionally can contain one or more possible double bonds in the ring, ~~whereby wherein~~ the C₃₋₆-heterocycloalkylring can optionally be substituted with C₁₋₆-alkyl, C₁₋₆-alkyl-COOH or C₁₋₆-alkyl-NH₂,

R⁵

represents C₁₋₆-alkyl, C₂₋₆-alkenyl, C₃₋₆-cycloalkyl or phenyl each can optionally

be substituted in one or more places, the same way or differently, with halogen, hydroxy, phenyl or with the group $-\text{NH}_2$, $-\text{NH}(\text{CO})-\text{O}-\text{C}_{1-6}\text{-alkyl}$, whereby wherein phenyl itself can optionally be substituted in one or more places, the same way or differently, with halogen, hydroxy or $\text{C}_{1-6}\text{-alkyl}$,

R^6 represents $\text{C}_{1-6}\text{-alkyl}$, $\text{C}_{2-6}\text{-alkenyl}$ or phenyl,

R^7 represents hydrogen or $\text{C}_{1-6}\text{-alkyl}$ and

R^8 or R^9 in each case independently of one another represent hydrogen, $\text{C}_{1-6}\text{-alkyl}$, $\text{C}_{2-6}\text{-alkenyl}$, $\text{C}_{3-6}\text{-cycloalkyl}$, aryl or phenyl, whereby wherein aryl or phenyl can optionally be substituted in one or more places, the same way or differently, with hydroxy or the group $-\text{NO}_2$ or $-\text{N}(\text{C}_{1-6}\text{-alkyl})_2$

or

R^8 and R^9 together form a C_{3-6} -heterocycloalkylring containing at least one nitrogen atom and optionally can be interrupted by one or more oxygen and/or sulfur atoms and/or can be interrupted by one or more $-(\text{CO})-$ groups in the ring and/or optionally can contain one or more possible double bonds in the ring, whereby wherein the C_{3-6} -heterocycloalkylring can optionally be substituted with the group $-\text{NH}_2$,

wherein when A and B represent hydrogen, X represents $-\text{NH}-$ and R^2 represents $\text{C}_{1-6}\text{-alkyl}$,

then R^1 represents $-\text{NH}-(\text{CO})-\text{CH}(\text{NH}_2)-(\text{CH}_2)_2-\text{COOH}$ or $-\text{NH}-(\text{CO})-\text{CH}(\text{NH}_2)-(\text{CH}_2)_2-\text{COOC}_2\text{H}_5$,

wherein when R^1 represents $-\text{COO-iso-propyl}$,

then X represents $-\text{NH}-$ and R^2 represents $\text{C}_3\text{-alkinyl}$ and A or B independently of one another represent the group $-\text{NO}_2$ or $-\text{NH}-(\text{CO})-\text{CF}_3$, and

wherein when R^1 represents halogen, X represents $-\text{NH}-$, B represents hydrogen and R^2 represents $\text{C}_{1-6}\text{-alkyl}$ substituted with $-\text{NH}_2$,

then A represents $-\text{NH}-(\text{CO})-\text{C}_6\text{-cycloalkyl}-\text{NH}_2$,

or a diastereomer, enantiomer as well as all related isotopes, diastereomers, enantiomers, solvates, polymorphs or pharmaceutically acceptable salts salt thereof.

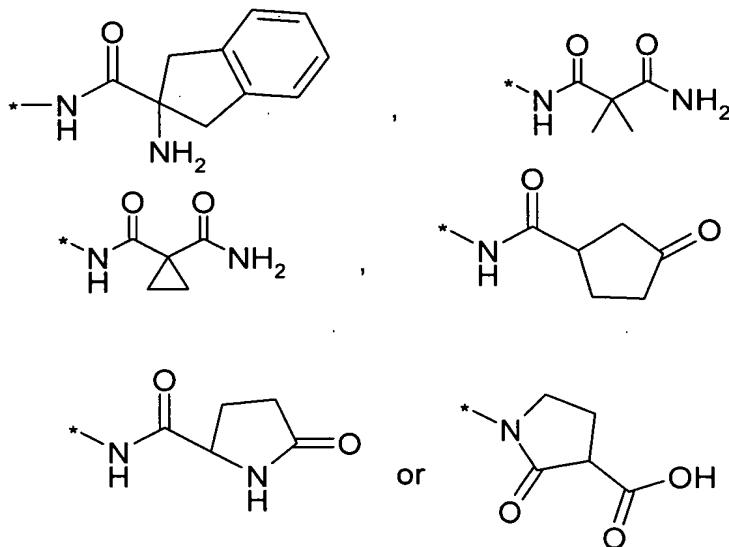
7. (Currently Amended) Compounds of general formula (I) A compound according to claim 6, 4 in which

A or B in each case independently of one another represent hydrogen or the group -NH-C₂H₄-OH, -NH-CH₂-hydroxyphenyl, -NH-(CO)-pyrrolidinyl, -NH-(CO)-CH(NH₂)-CH₂-phenyl, -NH-(CO)-pentyl-NH₂, -NH-(CO)-hexyl-NH₂, -NH-(CO)-CH₂-NH₂, -NH-(CO)-CH(NH₂)-hydroxyphenyl, -NH-(CO)-CH₂-hydroxyphenyl, -NH-(CO)-CH₂-methylphenyl, -NH-(CO)-C₂H₄-dihydroxyphenyl, -NH-(CO)-CH(OH)-phenyl, -NH-(CO)-CH(NH₂)-CH₂(OH), -NH-(CO)-C(CH₃)₂NH₂, -NH-(CO)-NH(C₂H₅), -CH₂OH, -(CO)-NH-cyclopropyl, -(CO)-NH-CH(CH₃)₂, ~~whereby the wherein~~ pyrrolidinyl can optionally be substituted with hydroxy or the group -NH₂,

X represents an oxygen atom or the group -NH-,

R¹ represents halogen or hydroxymethyl and

R² represents -C₂H₅ optionally substituted in one or more places, the same way or differently, with hydroxy, imidazolyl or represents -C₃H₇ or -C₄H₈ optionally substituted in one or more places, the same way or differently with the group -NH₂, -NH-(CO)-CH(NH₂)-C₂H₄-COOH, -NH-(CO)-phenyl, -NH-(CO)-CH₂-phenyl, -NH-(CO)-CH₂-CH(CH₃)-phenyl, -NH-(CO)-CH₂-O-phenyl, -NH-(CO)O-CH₂-phenyl, -NH-(CO)-CH(NH₂)CH₂-phenyl,



whereby the wherein phenyl can optionally be substituted in one or more places, the same or differently, with halogen, -CH₃ or -(CO)-C(CH₂)(C₂H₅), or represents C₃-alkinyl,

or a diastereomer, enantiomer as well as all related isotopes, diastereomers, enantiomers, solvates, polymorphs or pharmaceutically acceptable salts salt thereof.

8. (Currently Amended) Compounds of general formula (I) A compound according to claim 7, which is

N-[3-[[2-[[3-[(2R)-2-amino-1-oxo-3-phenylpropyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-2,2-dimethyl-propanediamide,

1-[3-[[2-[[3-[(2R)-2-amino-1-oxo-3-phenylpropyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-2-oxo-3-pyrrolidinecarboxylic acid,

N-[3-[[5-bromo-4-[[3-[(5-oxo-2-pyrrolidinyl)carbonyl]amino]propyl]amino]-2-pyrimidinyl]amino]phenyl]-1-pyrrolidinecarboxamide,

Pyrrolidine-1-carboxylic acid [3-(5-bromo-4-{3-[2-(2,4-dichloro-phenyl)-acetyl-amino]-propyl-amino}-pyrimidin-2-yl-amino)-phenyl]-amide,

Pyrrolidine-1-carboxylic acid [3-(5-bromo-4-{3-[2-(4-bromo-phenyl)-acetyl-amino]-propyl-amino}-pyrimidin-2-yl-amino)-phenyl]-amide,

Pyrrolidine-1-carboxylic acid (3-{5-bromo-4-[3-(2-p-tolyl-acetylamino)-propylamino]-pyrimidin-2-ylamino}-phenyl)-amide,
Pyrrolidine-1-carboxylic acid [3-(5-bromo-4-{3-[2-(2,4-difluoro-phenyl)-acetylamino]-propylamino}-pyrimidin-2-ylamino)-phenyl]-amide,
Pyrrolidine-1-carboxylic acid {3-[5-bromo-4-(3-{2-[2,3-dichloro-4-(2-methylene-butyryl)-phenoxy]-acetylamino}-propylamino)-pyrimidin-2-ylamino]-phenyl}-amide,
Pyrrolidine-1-carboxylic acid [3-(5-bromo-4-{3-[3-(2,3-dichloro-phenyl)-butyrylamino]-propylamino}-pyrimidin-2-ylamino)-phenyl]-amide,
Pyrrolidine-1-carboxylic acid (3-{5-bromo-4-[3-(3-bromo-benzoylamino)-propylamino]-pyrimidin-2-ylamino}-phenyl)-amide,
N-(3-((4-((4-aminobutyl)amino)-5-bromo-2-pyrimidinyl)amino)phenyl)-1-pyrrolidinecarboxamide,
N-[3-[[2-[[3-[(2R)-2-amino-1-oxo-3-phenylpropyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-2,2-dimethyl-propanediamide,
N-[3-[[2S)-2-Amino-1-oxo-3-phenylpropyl]amino]-5-[[5-bromo-4-(prop-2-nyloxy)pyrimidin-2-yl]amino]phenyl]pyrrolidine-1-carboxamide,
N-[3-[[2R)-2-Amino-1-oxo-3-phenylpropyl]amino]-5-[[5-bromo-4-(prop-2-nyloxy)pyrimidin-2-yl]amino]phenyl]pyrrolidine-1-carboxamide,
(α R)- α -Amino-*N*-[3-[[5-bromo-4-(prop-2-nyloxy)pyrimidin-2-yl]amino]-5-(hydroxymethyl)phenyl]benzenepropanamide,
2-[3-(5-Bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-5-hydroxymethyl-phenylamino]-ethanol,
(2R)-Amino-*N*-[3-hydroxymethyl-5-(4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-3-phenyl-propionamide,
3-((2R)-Amino-3-phenyl-propionylamino)-5-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-*N*-cyclopropyl-benzamide,
3-((2R)-Amino-3-phenyl-propionylamino)-5-(5-bromo-4-prop-2-nyloxy-pyrimidin-2-ylamino)-*N*-isopropyl-benzamide,
Phenylmethyl [3-[[2-[[3-[[ethylamino]carbonyl]amino]phenyl]amino]-5-(hydroxymethyl)pyrimidine-4-yl]amino]propyl]carbamate,

Pyrrolidine-1-carboxylic acid (3-{4-[3-((2R)-amino-3-phenyl-propionylamino)-propylamino]-5-bromo-pyrimidine-2-ylamino}-phenyl)-amide,
Pyrrolidine-1-carboxylic acid (3-{4-[3-((2S)-amino-3-phenyl-propionylamino)-propylamino]-5-bromo-pyrimidine-2-ylamino}-phenyl)-amide,
2-[3-(5-Bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenylamino]-ethanol,
1-Amino-cyclopentancarbonylic acid[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-amide,
1-Amino-cyclohexancarbonylic acid-[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-amide,
(2S)-Amino-N-[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-3-phenyl-propionamide,
(2R)-Amino-N-[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-3-phenyl-propionamide,
2-{[3-(5-Bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenylamino]-methyl}-phenol,
(2R)-Amino-N-[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-3-(4-hydroxy-phenyl)-propionamide,
N-[3-(5-Bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-3-(3,4-dihydroxy-phenyl)-propionamide,
N-[3-(5-Bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-2-hydroxy-(2S)-phenyl-acetamide,
N-[3-(5-Bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-2-hydroxy-(2R)-phenyl-acetamide,
(2S)-Amino-N-[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-3-hydroxy-propionamide,
(2R)-Amino-N-[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-3-hydroxy-propionamide,
2-Amino-N-[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-2-methyl-propionamide,
(2S)-Amino-N-[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-3-(4-hydroxy-phenyl)-propionamide,

(2S)-Amino-N-[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-3-p-tolyl-propionamide or

(2R)-Amino-N-[3-(5-bromo-4-prop-2-nyloxy-pyrimidine-2-ylamino)-phenyl]-3-p-tolyl-propionamide,

or a pharmaceutically acceptable salt thereof.

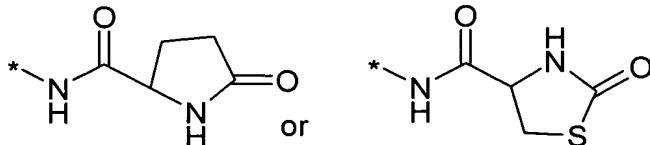
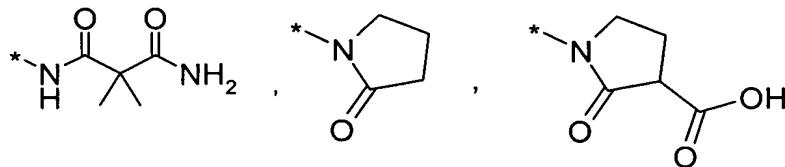
9. (Currently Amended) Compounds of general formula (I) A compound according to claim 6, + in which

A or B in each case independently of one another represent halogen, hydrogen or the group -SO₂-CH₃, -NO₂, -NH₂, -CF₃, -CH₂-NH-(CO)-NH₂, -CH₂-pyrrolidinyl, -NH-(CO)-CH₃, -NH-(CO)-hexyl-NH₂, -NH-(CO)-phenyl, -NH-(CO)-pyrrolidinyl, --NH-(CO)-CH(NH₂)-CH₂-phenyl, NH-(CO)-OCH₃, -NH-(CO)-OCH(CH₃)₂, -NH-(CO)-OC₂H₄-morpholino, -NH-(CO)-NH-cyclopropyl, -NH-(CO)-morpholino, -NH-(CO)-NH-C₂H₄-morpholino, -NH-(CO)-NH-hydroxycycloalkyl, hydantoinyl,
~~whereby the wherein~~ pyrrolidinyl can optionally be substituted with hydroxy or the group -NH₂ and
~~whereby the wherein~~ hydantoinyl can optionally be substituted with the group -CH₃ or -(CO)-thiazolidinonyl,

X represents the group -NH-,

R¹ represents halogen and

R² represents -CH₂-dihydroxyphenyl, -C₂H₄-imidazolyl, or -C₃H₇ optionally substituted in one or more places, the same way or differently, with



or a diastereomer, enantiomer as well as all related isotopes, diastereomers, enantiomers, solvates, polymorphs or pharmaceutically acceptable salts salt thereof.

10. (Currently Amended) ~~Compounds of general formula (I) according to claim 7 A compound, which is~~

4-((4-((2-(1H-imidazol-4-yl)ethyl)amino)-5-iodo-2-pyrimidinyl)amino)-benzenesulfonamide, N-((3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)methyl)-urea,

1-((3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)methyl)-3-pyrrolidinol,

(3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-carbamic acid methyl ester,

N2-(3-aminophenyl)-5-bromo-N4-(2-(1H-imidazol-4-yl)ethyl)-2,4-pyrimidinediamine,

N-((3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-N'-cyclopropyl-urea,

N-((3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-4-morpholinecarboxamide,

(3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-carbamic acid 1-methylethyl ester,

N-((3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-methanesulfonamide,

N2-(3-amino-5-(trifluoromethyl)phenyl)-5-bromo-N4-(2-(1H-imidazol-4-yl)ethyl)-2,4-pyrimidinediamine,

N-((3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-N'-(2-(4-morpholiny)ethyl)-urea,

N2-(3-amino-5-chlorophenyl)-5-bromo-N4-(2-(1H-imidazol-4-yl)ethyl)-2,4-pyrimidinediamine, (3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-carbamic acid 2-(4-morpholiny)ethyl ester,

N-((3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-N'-(4-

hydroxycyclohexyl)-urea,
N-(3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-acetamide,
N-(3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-benzamide,
(4R)-N-[3-[[5-bromo-2-[[3-[(1-pyrrolidinyl)carbonyl]amino]phenyl]amino]-4-pyrimidinyl]amino]propyl]-2-oxo-4-thiazolidinecarboxamide,
3-[3-[[5-bromo-4-[[2-(1H-imidazol-4-yl)ethyl]amino]-2-pyrimidinyl]amino]phenyl]-2,4-imidazolidinedione,
3-[3-[[5-bromo-4-[[2-(1H-imidazol-4-yl)ethyl]amino]-2-pyrimidinyl]amino]phenyl]-1-methyl-2,4-imidazolidinedione,
1-[3-[[2-[[3-[(2R)-2-amino-1-oxo-3-phenylpropyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-2-oxo-3-pyrrolidinecarboxylic acid,
1-[3-[[2-[[3-[(1-aminocyclohexyl)carbonyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-2-oxo-3-pyrrolidinecarboxylic acid,
N-[3-[[2-[[3-[(2R)-2-amino-1-oxo-3-phenylpropyl]amino]phenyl]amino]-5-bromo-4-pyrimidinyl]amino]propyl]-5-oxo-2-pyrrolidinecarboxamide,
N-[3-[[2-[[3-[(2R)-2-amino-1-oxo-3-phenylpropyl]amino]phenyl]amino]-5-chloro-4-pyrimidinyl]amino]propyl]-2,2-dimethyl-propanediamide,
3-[3-[[5-bromo-4-[(3,4-dihydroxyphenyl)methyl]amino]-2-pyrimidinyl]amino]phenyl]-2,4-imidazolidinedione,
3-[3-[[5-bromo-4-[(3,4-dihydroxyphenyl)methyl]amino]-2-pyrimidinyl]amino]phenyl]-1-methyl-2,4-imidazolidinedione,
(4R)-N-[3-[[5-bromo-2-[[3-(2,5-dioxo-1-imidazolidinyl)phenyl]amino]-4-pyrimidinyl]amino]propyl]-2-oxo-4-thiazolidinecarboxamide,
N-[3-[[5-bromo-2-[[3-(2,5-dioxo-1-imidazolidinyl)phenyl]amino]-4-pyrimidinyl]amino]propyl]-5-oxo-2-pyrrolidinecarboxamide,
N-[3-[[5-bromo-2-[[3-(2,5-dioxo-1-imidazolidinyl)phenyl]amino]-4-pyrimidinyl]amino]propyl]-2,2-dimethyl-propanediamide,
3-[3-[[5-bromo-4-[[3-(2-oxo-1-pyrrolidinyl)propyl]amino]-2-pyrimidinyl]amino]phenyl]-2,4-imidazolidinedione,
(4R)-N-[3-[[5-bromo-2-[[3-(3-methyl-2,5-dioxo-1-imidazolidinyl)phenyl]amino]-4-

pyrimidinyl]amino]propyl]-2-oxo-4-thiazolidinecarboxamide or
(4R)-N-[3-[[5-bromo-2-[[3-[2,5-dioxo-3-[(4R)-2-oxo-4-thiazolidinyl]carbonyl]-1-imidazolidinyl]phenyl]amino]-4-pyrimidinyl]amino]propyl]-2-oxo-4-thiazolidinecarboxamide,
or a pharmaceutically acceptable salt thereof.

11. (Currently Amended) A compound, which is A compound of following structure
N-(3-((4-((3-(aminomethyl)phenyl)amino)-5-bromo-2-pyrimidinyl)amino)phenyl)-1-pyrrolidine-carboxamide,
4-[[5-bromo-4-[[2-(1H-imidazol-5-yl)ethyl]amino]-2-pyrimidinyl]amino]-1-naphthaleneacetic acid,
5-[[5-bromo-4-[[2-(1H-imidazol-5-yl)ethyl]amino]-2-pyrimidinyl]amino]-1H-indole-2-carboxylic acid, ethyl ester,
5-bromo-N4-[2-(1H-imidazol-5-yl)ethyl]-N2-(2-methyl-6-quinoliny)-2,4-pyrimidinediamine,
4-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)-benzamide,
4-((4-((2-(1H-imidazol-4-yl)ethyl)amino)-5-iodo-2-pyrimidinyl)amino)-benzenesulfonamide,
3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)-benzamide,
3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)-benzenesulfonamide,
5-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)-1,3-dihydro-2H-benzimidazol-2-one,
3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)- benzoic acid methyl ester,
3-amino-5-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)- benzoic acid methyl ester,
N-((3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)methyl)-methanesulfonamide,
4-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)- benzoic acid methyl ester,
3-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)-phenol,
5-((5-bromo-4-((2-(1H-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)-1H-isoindole-1,3(2H)-dione,

5-bromo-*N*⁴-(2-(1*H*-imidazol-4-yl)ethyl)-*N*²-(3-methylphenyl)-2,4-pyrimidinediamine, *N*-(3-((5-bromo-4-((2-(1*H*-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)phenyl)-methanesulfonamide, 4-((4-((2-(1*H*-imidazol-4-yl)ethyl)amino)-5-methyl-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((4-((2-(1*H*-imidazol-4-yl)ethyl)amino)-5-(trifluoromethyl)-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((4-((3-aminopropyl)amino)-5-bromo-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((5-bromo-4-((3-(1*H*-imidazol-1-yl)propyl)amino)-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((5-bromo-4-((2-(1-pyrrolidinyl)ethyl)amino)-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((4-((4-aminobutyl)amino)-5-bromo-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)-butanoic acid, 4-((4-((3-((aminocarbonyl)amino)propyl)amino)-5-bromo-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)-butanoic acid ethyl ester, 4-((5-bromo-4-((4-(methylamino)butyl)amino)-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((5-bromo-4-((2-(1*H*-imidazol-1-yl)ethyl)amino)-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((5-ethyl-4-((2-(1*H*-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((4-((2-(1*H*-imidazol-4-yl)ethyl)amino)-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((5-bromo-4-((2-(2-pyridinyl)ethyl)amino)-2-pyrimidinyl)amino)-benzenesulfonamide, 4-((5-bromo-4-((2-(1*H*-indol-3-yl)ethyl)amino)-2-pyrimidinyl)amino)-benzenesulfonamide, 2-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)-acetamide, *N*-(2-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)ethyl)-acetamide, 3-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)-propanamide, *N*-(4-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)butyl)-acetamide, *N*-(3-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)propyl)-acetamide, *N*-(3-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)propyl)-2-furancarboxamide, *N*-(3-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)propyl)-1*H*-pyrrole-2-carboxamide,

4-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)-butanamide,
N-(3-((2-((4-(aminosulfonyl)phenyl)amino)-5-bromo-4-pyrimidinyl)amino)propyl)-2-thiophenecarboxamide,
4-((4-(4-(aminomethyl)-1-piperidinyl)-5-bromo-2-pyrimidinyl)amino)-benzenesulfonamide,
~~4-(5-Brom-4-prop-2-ynylamino-pyrimidin-2-ylamino)-phenyl]-N,N-dimethylaminosulfonylamin,~~
~~1-Methyl-1H-imidazol-4-sulfonsäure [4-(5-brom-4-prop-2-ynylamino-pyrimidin-2-ylamino)-phenyl]-amid,~~
4-(5-bromo-4-prop-2-ynylamino-pyrimidin-2-ylamino)-phenyl]-N,N-dimethylaminosulfonylamin,
1-Methyl-1H-imidazol-4-sulfonic acid [4-(5-bromo-4-prop-2-ynylamino-pyrimidin-2-ylamino)-phenyl]-amid,
3-(5-Bromo-4-prop-2-ynyoxy-pyrimidine-2-ylamino)-benzoic acid ethyl ester,
4-(5-Bromo-4-prop-2-ynyoxy-pyrimidine-2-ylamino)-benzoic acid ethyl ester,
2-(5-Bromo-4-prop-2-ynyoxy-pyrimidine-2-ylamino)-benzoic acid ethyl ester,
2-(5-Bromo-4-prop-2-ynyoxy-pyrimidine-2-ylamino)-phenol,
4-(5-Bromo-4-prop-2-ynyoxy-pyrimidine-2-ylamino)-benzoic acid methyl ester,
3-(5-Nitro-4-prop-2-ynylamino-pyrimidine-2-ylamino)-phenol,
2-(5-Nitro-4-prop-2-ynylamino-pyrimidine-2-ylamino)-benzoic acid ethyl ester,
3-(5-Nitro-4-prop-2-ynylamino-pyrimidine-2-ylamino)-benzoic acid ethyl ester,
4-(5-Nitro-4-prop-2-ynylamino-pyrimidine-2-ylamino)-benzoic acid ethyl ester,
4-(5-Nitro-4-prop-2-ynylamino-pyrimidine-2-ylamino)-phenol,
Methyl 3-[[5-bromo-4-(prop-2-ynyoxy)pyrimidin-2-yl]amino]-5-[(2-hydroxyethyl)amino]benzoate,
Methyl 3-amino-5-[[5-bromo-4-(prop-2-ynyoxy)pyrimidin-2-yl]amino]benzoate or
3-[Bis-(2-hydroxy-ethyl)-amino]-5-(5-bromo-4-prop-2-ynyoxy-pyrimidine-2-ylamino)-benzoic acid methyl ester,
or a pharmaceutically acceptable salt thereof.

12. (Currently Amended) Pharmaceutical A pharmaceutical composition comprising as an active ingredient at least one compound according to claim 1 in an therapeutically effective

amount for the prevention or treatment of a disorder caused by, associated with or accompanied by disruptions of cell proliferation and/or angiogenesis together with an 6 and a pharmaceutically acceptable carrier, diluent or excipient.

13-16. (Cancelled)

17. (Currently Amended) The use according to claim 13, wherein the disorder is selected from A method of treating cancer comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition according to claim 12 angiofibroma, arthritis, eye diseases, auto immune diseases, chemotherapy agent induced alopecia and mucositis, Crohn disease, endometriosis, fibrotic diseases, hemangioma, cardiovaskular diseases, infectious diseases, nephrological diseases, chronic und acute neurodegenerative diseases, like disruptions of nerval tissue, viral infections, to prevent restenosis of vessels, for preventing the formation of scars, preventing or treating keratoma seniles and contact dermatitis.

18. (Currently Amended) The use A method according to claim 17, wherein the cancer treated is a solid tumor, a tumor- cancer stands for a solide tumours, tumour- or metastasis growth, Kaposi Sarkom, Hodgkin's disease or and/or leukemia, arthritis stands for rheumatoid arthritis, eyes diseases stand for diabetic retinopathy, neovaskular glaukoma, auto immune diseases stand for psoriasis, alopecia and/or multiple sklerosis, fibrotic diseases stand for cirrhosis of the liver, mesangial cell proliferative diseases, arteriosklerosis, infectiouse diseases stand for diseases that are caused by unicellular parasites, cardiovascular diseases stand for stenosis, like stent induced restenosis, arteriosklerosis and restenosis, nephrological diseases stand for glomerulonephritis, diabetic nephropaty, malignant nephrosklerosis, thrombic mikroangiopathis syndrome, transplant rejections and glomerulopathy, chronic neurodegenerative diseases stand for Huntington's disease, amyotrophic lateralsklerosis, Parkinsons disease, AIDS, dementia und Alzheimer's disease,

~~acute neurodegenerative diseases stand for ischemias of the brain and neurotraumas, and viral infections stand for cytomegalic infections, herpes, hepatitis B or C and HIV.~~

19. (Currently Amended) A method according to claim 17, wherein the patient treated is of treating a mammal having a disease state alleviated by the inhibition of Akt, Pdk, chk and/or VEGF R activity, wherein the method comprises administering to a mammal a therapeutically effective amount of a compound according to claim 1.

20. (Currently Amended) ~~The~~ A method of claim 19, wherein the mammal is a human.

21-25. (Cancelled)

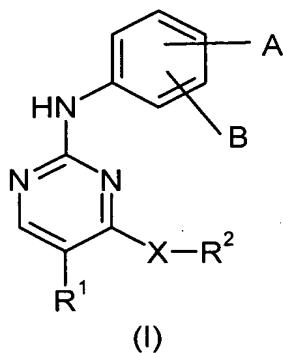
26. (New) A pharmaceutical composition comprising at least one compound according to claim 11 and a pharmaceutically acceptable carrier, diluent or excipient.

27. (New) A method of treating cancer comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition according to claim 26.

28. (New) A method according to claim 27, wherein the cancer treated is a solid tumor, a tumor- or metastasis growth, Kaposi Sarkom, Hodgkin's disease or leukemia.

29. (New) A method of treating rheumatoid arthritis comprising administering to a patient in need thereof an effective amount of a pharmaceutical composition according to claim 12.

30. (New) A compound of formula (I)



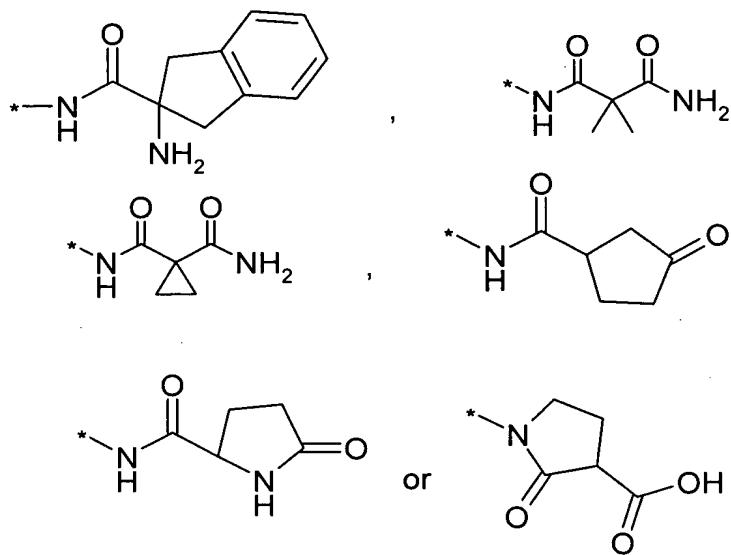
in which

A or B in each case independently of one another represent hydrogen or the group $-\text{NO}_2$, $-\text{NH}_2$, $-\text{NR}^3\text{R}^4$, $-\text{N}(\text{C}_{1-6}\text{-hydroxyalkyl})_2$, $-\text{NH}(\text{CO})\text{R}^5$, $-\text{NHCOOR}^6$, $-\text{NR}^7(\text{CO})\text{R}^8\text{R}^9$, $-\text{NR}^7(\text{CS})\text{NR}^8\text{R}^9$, $-\text{COOR}^5$, $-\text{CO-NR}^8\text{R}^9$, $-\text{SO}_2\text{-CH}_3$, 4-bromo-1-methyl-1*H*-pyrazolo-3-yl or C_{1-6} -alkyl optionally substituted in one or more places, the same way or differently with cyano, halogen, hydroxy or the group $-\text{NH}_2$, $-\text{NH}(\text{CO})\text{R}^5$, $-\text{SO}_2\text{-NHR}^3$, $-\text{COOR}^5$, $-\text{CONR}^8\text{R}^9$, $-\text{O}(\text{CO})\text{R}^5$, $-\text{O}(\text{CO})\text{C}_{1-6}\text{-alkyl-R}^5$,

X represents an oxygen atom or the group $-\text{NH}-$,

R^1 represents hydrogen, halogen, hydroxymethyl or the group $-\text{COOH}$, $-\text{COO-iso-propyl}$, $-\text{NO}_2$, $-\text{NH}(\text{CO})-(\text{CH}_2)_2\text{-COOH}$ or $-\text{NH}(\text{CO})-(\text{CH}_2)_2\text{-COO-C}_{1-6}\text{-alkyl}$,

R^2 represents C_{1-6} -alkyl optionally substituted in one or more places, the same way or differently, with hydroxy, imidazolyl or the group $-\text{NH}_2$, $-\text{NH}(\text{CO})\text{O-CH}_2\text{-phenyl}$, $-\text{NH}(\text{CO})\text{H}$, $-\text{NH}(\text{CO})\text{-phenyl}$, $-\text{NH}(\text{CO})\text{CH}_2\text{-O-phenyl}$, $-\text{NH}(\text{CO})\text{CH}_2\text{-phenyl}$, $-\text{NH}(\text{CO})\text{-CH}(\text{NH}_2)\text{CH}_2\text{-phenyl}$, $-\text{NH}(\text{CO})\text{-CH}_2\text{-CH}(\text{CH}_3)\text{-phenyl}$, $-\text{NH}(\text{CO})\text{-CH}(\text{NH}_2)\text{-(CH}_2)_2\text{-COOH}$,



wherein phenyl can optionally be substituted in one or more places, the same or differently with halogen, C₁₋₆-alkyl or -(CO)-C(CH₂)-C₂H₅, or represents C₃-alkinyl,

R³ or R⁴ in each case independently of one another represent hydrogen or C₁₋₆-alkyl optionally substituted in one or more places, the same way or differently, with hydroxy, phenyl or hydroxyphenyl,
or

R³ and R⁴ together form a C₃₋₆-heterocycloalkylring containing at least one nitrogen atom and optionally can be interrupted by one or more oxygen and/or sulfur atoms and/or can be interrupted by one or more -(CO)- groups in the ring and/or optionally can contain one or more possible double bonds in the ring, wherein the C₃₋₆-heterocycloalkylring can optionally be substituted with C₁₋₆-alkyl, C₁₋₆-alkyl-COOH or C₁₋₆-alkyl-NH₂,

R⁵ represents C₁₋₆-alkyl, C₂₋₆-alkenyl, C₃₋₆-cycloalkyl or phenyl each can optionally be substituted in one or more places, the same way or differently, with halogen, hydroxy, phenyl or with the group -NH₂, -NH(CO)-O-C₁₋₆-alkyl, wherein phenyl can optionally be substituted in one or more places, the same way or differently, with halogen, hydroxy or C₁₋₆-alkyl,

R⁶ represents C₁₋₆-alkyl, C₂₋₆-alkenyl or phenyl,

R⁷ represents hydrogen or C₁₋₆-alkyl and
R⁸ or R⁹ in each case independently of one another represent hydrogen, C₁₋₆-alkyl, C₂₋₆-alkenyl, C₃₋₆-cycloalkyl, aryl or phenyl, wherein aryl or phenyl can optionally be substituted in one or more places, the same way or differently, with hydroxy or the group -NO₂ or -N(C₁₋₆-alkyl)₂
or
R⁸ and R⁹ together form a C₃₋₆-heterocycloalkylring containing at least one nitrogen atom and optionally can be interrupted by one or more oxygen and/or sulfur atoms and/or can be interrupted by one or more -(CO)- groups in the ring and/or optionally can contain one or more possible double bonds in the ring, wherein the C₃₋₆-heterocycloalkylring can optionally be substituted with the group -NH₂,
wherein when A and B represent hydrogen, X represents -NH- and R² represents C₁₋₆-alkyl,
then R¹ represents -NH-(CO)-CH(NH₂)-(CH₂)₂-COOH or -NH-(CO)-CH(NH₂)-(CH₂)₂-COOC₂H₅,
wherein when R¹ represents -COO-iso-propyl,
then X represents -NH- and R² represents C₃-alkinyl and A or B independently of one another represent the group -NO₂ or -NH-(CO)-CF₃, and
wherein when R¹ represents halogen, X represents -NH-, B represents hydrogen and R² represents C₁₋₆-alkyl substituted with -NH₂,
then A represents -NH-(CO)-C₆-cycloalkyl-NH₂,

or an isotope, solvate, polymorph or prodrug thereof.

31. (New) A compound according to claim 30, or a prodrug thereof, wherein said prodrug differs from said compound in that it has a free hydroxyl, free amino or free mercapto group bonded to an acetate, formate or benzoate group of said compound.

32. (New) A compound according to claim 6, wherein X represents an oxygen atom.

33. (New) A compound according to claim 6, wherein X represents the group -NH-.

REMARKS

Specification

The drawings have been cancelled and the material disclosed therein has been inserted into the specification.

Rejections Under 35 USC 112, second paragraph, and Under 35 USC 101

In claim 11, in the noted species, “brom” was changed to “bromo” and “sulfonsäure” was changed to “sulfonic acid.” These terms originally written in German have not been translated to their English equivalents before.

The terms “all related isotopes,” “solvates” and “polymorphs” is removed from the rejected claims. The term “prodrugs” was not present in the claims, but was rejected. A new claim 30 is added which recites “an isotope, solvate, polymorph or prodrug thereof.”

The term “all related isotopes” in claim 30 is recited only as an “isotope” thereof. One of ordinary skill in the art understands the meaning of the term “isotope” and can easily determine whether a given compound is an isotope of a compound of formula I. As such, there is no indefiniteness.

The term prodrug is defined in the specification on pages 15 and 16 and a large number of types of prodrugs are provided, which provides guidance to one of ordinary skill in the art in determining the scope of this term. In view of this disclosure, there is no indefiniteness.

Applicants added new claim 31 which more specifically defines the prodrugs.

The rejections to the form of the claims not specifically addressed above are clearly overcome by the amendments.

Rejections Under 35 USC 112, first paragraph

The term “prodrug” has been rejected as allegedly not enabled.

The Office Action’s main concern is the amount of experimentation needed in determining whether any particular derivative of a compound of the claims, e.g., an ester of a claimed alcohol, is indeed a prodrug or not, i.e., whether such a compound satisfies the three criteria for being a prodrug as alleged by the Office Action on page 5.

Testing the activity levels of compounds in this art is merely routine and it does not

require a “clinical trial setting” as alleged. The testing of activity levels can be done, for example, in *in vitro* assays. While it may take a considerable effort, which is not admitted, to make and test activity levels of certain compounds of the claims and their derivatives, e.g., potential prodrugs thereof, such is not undue experimentation. In the pharmaceutical arts, the testing of compounds is merely routine. See *In re Wands*, 858 F.2d 731, 735, 8 USPQ2d 1400 (Fed. Cir. 1988), stating that a “considerable amount of experimentation is permissible, if it is merely routine” In *Wands*, the PTO alleged a success rate of 2.8% when making the lack of enablement rejection, which rejection the Federal Circuit reversed.

Also, whether a compound would actually produce the active compound in the body at a meaningful concentration can also be tested without undue experimentations. Considering the nature of the art, one of ordinary skill in this art would expect that a considerable effort may be needed, which is not admitted.

The terms “solvate and polymorph” have been rejected as allegedly not enabled. The Office Action alleges that it is unpredictable whether in a given situation a solvate or a polymorph will form. However, it would not take undue experimentation to bring any compound of the claims, which compound is enabled, together with various solvents to check whether solvates or polymorphs have formed.

The Office Action alleges that the over eight hundred compounds disclosed in the specification were in contact with water or other solvents and that there was no showing that a solvate or polymorph has formed. The examples are directed to the preparation of various compounds of the claims. Water and other solvents were used during various process steps in obtaining the compounds of the claimed invention. The examples are not directed to efforts of making solvates or polymorphs. Various solvents were not brought together with the products of the examples as each example ends with a step yielding the compound of interest of the given example. Thus, the examples in the specification are not evidence of failure in forming solvates or polymorphs.

The term “related isotope” has also been rejected as allegedly not enabled. The term “related” has been removed. The Office Action alleges that there is a general lack of

predictability in making isotopes and that there is no expectation that all isotopes would share the same utility. While the making of isotopes is a specialized art, it does not mean that the making thereof would require undue experimentation. One of ordinary skill in the art can without undue experimentation design a desired isotope of the claimed compounds. Additionally, even if claim 30 includes inoperative embodiments, which is not admitted, such is not problematic because one of ordinary skill in the art would know how to avoid the same. See *In re Dinh-Nguyen*, 181 USPQ 46 (CCPA 1974), and *In re Sarett*, 140 USPQ 474 (CCPA 1964).

The method claims were amended such that they are directed to the treatment of cancer (claim 17) and the treatment of various more specific cancers (claim 18). New method claims directed to the same diseases have also been entered.

First and foremost, a specification disclosure which “contains a teaching of the manner and process of making and using the invention in terms which correspond in scope to those used in describing and defining the subject matter sought to be patented must be taken as in compliance with the enabling requirement of the first paragraph of § 112 unless there is reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support.” *In re Marzocchi*, 169 U.S.P.Q. 367, 369 (1971). “The PTO must have adequate support for its challenge to the credibility of applicant’s statements of utility”. (The quoted statement was made in the context of enablement, i.e., the how-to-use requirement of the first paragraph of section 112.) See also *In re Bundy*, 209 USPQ 48 (1981). The only relevant concern of the Patent Office should be over the truth of assertions relating to enablement. The first paragraph of section 112 requires nothing more than objective enablement. See *In re Marzocchi, supra*.

The Examiner has not established any basis to doubt objective enablement. The Examiner has also provided no support for establishing that one of ordinary skill would doubt the objective truth of the asserted utility, which is enabled by the specification. The rejection therefore is improper under *In re Marzocchi*.

The claims rejected are directed to compounds and to method claims for the treatment of cancer, including in dependent claims, solid tumor, a tumor- or metastasis growth, Kaposi Sarkom, Hodgkin’s disease or leukemia, the treatment of which are not objectively doubtable. There is no

indication that one of ordinary skill in the art would have questioned the effect of the drugs in view of the disclosure and the state of the art. See *Rasmussen v. Smithkline Beecham Co.*, 04-1191, 04-1192 (Fed. Cir. June 27, 2005). This is especially true since compounds with the claimed activities are known.

As discussed above, this is adequate to objectively enable an invention.

Nevertheless, applicants point to the specification which teaches, for example, various pathways the claimed diseases can be treated on page 1, lines 13-15, page 2, lines 11-13, and page 16, lines 14-16. See also the thorough discussion related to the treatment of the claimed diseases and the biological basis thereof on pages 39 to 42 and also on pages 44 to 48.

Additionally, the specification on pages 48 to 64 teaches various assays on how to test the compounds of the claimed invention. Assay results for numerous compounds of the claimed invention are provided. See, for example, the compounds added to the specification from the figures which were identified as having activities related to cancer.

Moreover, as discussed in *Wands*, “a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed.” Applicants provide specific guidance as to how the claimed compounds can be tested for activity levels as discussed above in addition to showing numerous species of the compounds claimed with activities related to claimed diseases. Methods of administration of these compounds and amounts thereof are also taught on pages 42 to 43 of the specification.

A concern of the Office Action appears to be the presence of inoperative embodiments. However, even if the claims here are found to include inoperative embodiments, which is not admitted, they would still meet the requirements of 35 U.S.C. §112. See *In re Sarett*, 140 USPQ 474 (CCPA 1964), stating that

The function of claims is to *point out* the invention and *define* the scope of the monopoly, not to exclude substances which are possibly of no use in practicing the invention. (Emphasis added.) and *In re Dinh-Nguyen*, 181 USPQ 46 (CCPA 1974), stating that

It is *not a function of the claims* to specifically exclude either possible inoperative substances or ineffective reactant proportions. (Emphasis added.)

In the present case, if any inoperative embodiments will be found, they would still not

diminish the numerous studies on pathway and related cancers thereto and the ability of one of ordinary skill in the art to practice the claimed invention without undue experimentation based on the guidance provided in the specification.

Rejections Under 35 USC 102

Claims 1 and 12 were rejected as allegedly anticipated by Ozeki and claims 1, 2, 12, 19-23 and 25 were rejected as allegedly independently of each other being anticipated by Andries and Dahmann. Applicants respectfully disagree with the rejections, but to further prosecution toward allowance, amend the claims by canceling claims 1 and 2. The various rejected dependent claims are either made dependent on claim 6, which is now rewritten in independent form, or canceled. Thus, the rejection is overcome at least by the amendments.

Rejections Under 35 USC 103

Claims 1, 2 and 12 were rejected as allegedly unpatentable over Ozeki. Applicants respectfully disagree with the rejection, but to further prosecution toward allowance, amend the claims by canceling claims 1 and 2 and making claim 12 dependent on claim 6. Thus, the rejection is overcome at least by the amendments.

Claims 1-12, 19-23 and 25 were rejected as allegedly independently of each other being unpatentable over Andries, Guo and Dahmann.

Andries provides a broad generic disclosure without any overlap with compounds of the present claims. For example, nothing in the references broad disclosure even teaches or suggests an R² group of the present claims.

Guo has a very broad generic disclosure from which a very large number of groups have to be independently chosen without guidance to end up with a compound of the present claims. Not a single preferred narrower generically disclosed group of compounds of the reference selects all the substitutens of the reference such that it would motivate one of ordinary skill in the art to make a compound of the present claims and many actually point away from the claimed

invention, see, for example, pages 8-9, both in their entirety. Moreover, most of such generically disclosed narrower groups still are very broad. The preferred compounds of the reference disclosed on pages 10-14 are all compounds with numerous various differences in each when compared to the compounds of the present claims. Based on the disclosure of Guo, one of ordinary skill in the art would not be motivated to select all the substituents such that a compound of the present claims would be achieved. As such, there is no obviousness. It is not adequate that a disclosure provides a teaching from which one can piece together an invention. There has to be some teaching or suggestion in the disclosure which would motivate one of ordinary skill in the art to the claimed invention.

Moreover, the method claims of the present invention are not taught or suggested at all by Guo.

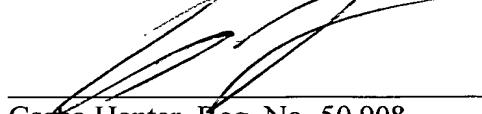
Dahmann also has a very broad disclosure. The possible substituents are defined, for example, from page 2 to page 10. Not one of the preferred groups is narrow enough to provide motivation to one of ordinary skill in the art to the selection of compounds according to the claimed invention. One of ordinary skill in the art is without guidance in the disclosure for selecting groups such that a compound of the present invention is achieved.

Furthermore applicants thoroughly checked the specific species disclosed in the reference by translating structure names into structures with applicant's available tools, including CAS-Numbers disclosed, etc., but could not find a single compound within the scope of present claim 1. Applicants request that the Patent Office point out any compound in the reference that may be of concern or at issue in any subsequent Office Actions if this rejection is maintained.

Reconsideration is respectfully requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402, including fees for a two month extension associated with this response and additional claim fees, if any.

Respectfully submitted,



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